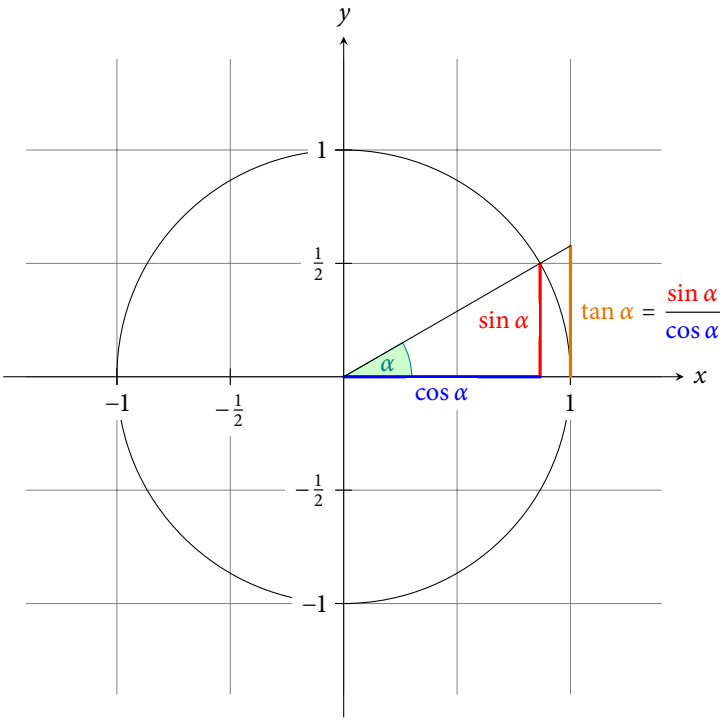
1 A TRIGONOMETRY EXAMPLE



The angle α is $30°$ in the example ($\pi/6$ in radians). The sine of α, which is the height of the red line, is

$$\sin\alpha = \frac{1}{2}.$$

By the Theorem of Pythagoras we have $\cos^2\alpha + \sin^2\alpha = 1$. Thus the length of the blue line, which is the cosine of α, must be

$$\cos\alpha = \sqrt{1 - \frac{1}{4}} = \frac{1}{2}\sqrt{3}.$$

This shows that $\tan\alpha$, which is the height of the orange line, is

$$\tan\alpha = \frac{\sin\alpha}{\cos\alpha} = \frac{1}{\sqrt{3}}.$$

2 PETRI-NETS